

COMMENTS TO DRAFT CHESAPEAKE BAY WATERSHED TMDL ON BEHALF OF THE HARRISBURG AUTHORITY

Provided below are the comments of The Harrisburg Authority (“Authority”) to the draft Chesapeake Bay Watershed TMDL (“Bay TMDL” or “draft TMDL” if referring specifically to the draft document) issued by the United States Environmental Protection Agency (“EPA”) on September 24, 2010. The Authority appreciates the opportunity to provide comments on the draft TMDL.

The Harrisburg Authority is the Pennsylvania municipal authority tasked with providing water, sewer, and resource recovery services for the City of Harrisburg and surrounding municipalities. The Authority’s sewer system serves an approximate population of 122,000 residents from the City of Harrisburg, the Boroughs of Paxtang, Penbrook, and Steelton, Susquehanna Township, and portions of Lower Paxton and Swatara Townships. The Authority’s sewer facilities include interceptor sewers with combined sewer overflows and an Advanced Wastewater Treatment Facility (AWTF) with a design capacity of 37.7 million gallons per day.

The Authority supports the clean up of the Chesapeake Bay and all impaired waters. However, based on the following comments and questions, the Authority believes that it is not appropriate to implement the draft TMDL without more adequate public participation and information sharing. Further, the Authority believes that the draft TMDL should be re-drafted in response to the following comments and questions and to reflect the severe demand on economic resources required to comply with the draft TMDL. The Authority also believes the draft TMDL should have maintained the Pennsylvania Department of Environmental Protection (“Department”) limits of 6 mg/l nitrogen and 0.8 mg/l phosphorus based on plant design flow for POTWs in Pennsylvania.

The following are the Authority’s comments and questions:

I. Public Comment Period is Inadequate

A. In general, EPA provided insufficient time to review and comment on the draft TMDL, given the amount of data and the availability of such data that were used in the development of the draft TMDL.

B. There is not sufficient latitude in the TMDL implementation schedule to allow EPA time to consider all public comment and then to revise the draft TMDL. The impact of the TMDL will be felt for decades and will cost billions of dollars to implement. The schedule is not considerate of the weight of the issues presented in the draft TMDL.

C. Because the Bay TMDL will generate numerous comments, it will be impossible for EPA to appropriately consider the comments submitted within the current schedule. By not seeking an extension of time with the courts in this instance when in

numerous other instances EPA has sought extension where a court-imposed deadline did not provide adequate time, EPA appears to have pre-ordained the final Bay TMDL content and has reduced the benefit of the public comment process.

II. Legal Basis of TMDL

A. Section 303(d) of the Clean Water Act, which addresses TMDL development, provides EPA with the authority to develop a TMDL only if it first disapproves a state submitted TMDL. There is no indication that a state developed TMDL was submitted to EPA by a Bay State Jurisdiction, which was subsequently disapproved. Therefore, EPA is without statutory authority to develop the Bay TMDL.

B. The draft TMDL suggests, without any basis, that Section 117(g) of the Clean Water Act includes a nondiscretionary duty on the part of EPA to develop the Bay TMDL.

C. EPA cannot require either or both the Bay TMDL or state submitted Watershed Implementation Plans (“WIPs”) to meet a “reasonable assurance” standard given that the term “reasonable assurance” is neither defined in the Clean Water Act nor its implementing regulations. EPA has also not provided guidance on how such standard is to be evaluated.

D. What is the EPA’s authority to enforce a Chesapeake Bay TMDL in Pennsylvania when all of the impaired streams are outside of the Commonwealth and the Bay TMDL doesn’t apply to Pennsylvania?

III. EPA’s “Backstop Allocation” Approach

A. Neither the Clean Water Act nor its implementing regulations permit EPA to unilaterally impose the “backstop allocation” approach on Pennsylvania and, more specifically, point sources, because the Clean Water Act reserves loading determinations to the states.

B. Uncertainty of TMDL Requirements Will Trigger Delays in Compliance and Add Significant Costs

1. In the specific case of the Authority, should cap loads be reduced from the current levels based on design capacity and 6 mg/l total nitrogen and 0.8 mg/l total phosphorus to the limit of technology, because other sectors fail to meet their target loading reductions, it is likely that the Authority will face increased capital expenses of over \$50 million and increased operations and maintenance costs of \$4 million per year. In addition, it is likely that additional lands would need to be purchased to site the required additional treatment units.

2. POTWs typically deliver complex treatment plant upgrades that take about 5 to 6 years from start of planning to initiation of operation.

3. Pennsylvania developed its Chesapeake Bay Tributary Strategy (“CBTS”) in 2004 through 2006, and many POTWs have already received annual cap loads and compliance schedules in their NPDES permits and have started construction. EPA’s backstop cap loads are based on effluent concentrations that are 50 percent of the Department’s CBTS limits for total nitrogen and 12.5 percent for total phosphorus:

a. What should a POTW in a planning phase plan for at the current time? Should it plan for the CBTS limits or the backstop limits or both?

b. What should a POTW under construction plan for at the current time? Should it now plan for additional treatment?

c. Even if EPA does not include backstop limits with the initial issuance of the TMDL, what guarantees will EPA make that backstop limits will not be “mandated” at any of the two year milestone reviews or at the end of the current NPDES permit term?

d. How will EPA address financial impossibility cases, where a POTW has gone into substantial debt to achieve the CBTS limits and are subsequently subject to backstop limits?

e. How will long term contracts that POTW’s may have entered into for the purchase or the sale of credits be dealt with if backstop limits are utilized or in the case that thresholds for the creation of credits changes?

f. How will nutrient credit generation and purchase be calculated given different delivery ratios in the 5.3 Chesapeake Bay Watershed Model versus the 4.3 Chesapeake Bay Watershed Model, the latter of which was used by the Department to develop its trading program?

4. Has EPA conducted an economic analysis of the impact of its backstop allocation approach on ratepayers of municipal wastewater treatment plants?

5. For the Authority’s AWTF, EPA’s imposition of the “backstop allocation” approach will require significant upgrades to achieve year-round complete nitrification and denitrification, accounting for maximum month flows and loads, refractory organics (rDON), temperature, and other factors that will affect optimum performance. Evaluations will be needed to determine the most cost-effective combination of processes to achieve the required limit of technology performance.

At this point it is representative to consider that in order to reduce TN to 3 mg/l, additional activated sludge facilities will be needed to insure complete nitrification and additional denitrification filters will be needed to increase denitrification efficiency. Regarding TP reduction to 0.1 mg/l, denitrification filters are not intended to achieve sufficient TSS removal to meet this low level. An additional enhanced flocculation process may be required. This introduces a complication, in that the low TP requirement may impact the growth of biological denitrifiers in the DN filters. Therefore, higher TP levels may need to be maintained through the DN filters and post chemical precipitation and finer media filtration may be needed to polish the DN filter effluent.

The enhanced upgrades described above to meet the backstop allocation will have significant impacts on both capital and O&M costs for the Authority's AWTF. In addition, site space constraints to accommodate these expanded facilities will probably affect the process selection/configuration and costs as well.

6. What are the expected additional capital, annual, and present worth costs associated with implementation of the backstop limits of 3 mg/l total nitrogen and 0.1 mg/l total phosphorus?

7. What are the expected savings in capital, annual, and present worth costs associated with implementation of the reallocation of additional total nitrogen and total phosphorus to the agricultural and developed segments?

8. What analysis has EPA made on the social impacts of such re-allocation?

9. Has EPA considered the social justice of such re-allocation given that larger populations of minorities and low to moderate income families reside in the cities and boroughs that are served by public sewers than in the agricultural and developed segments?

C. Reallocation Of Loads To Other Sectors Is Unjustified and Inequitable

1. The draft TMDL states that "EPA is establishing draft backstop allocations that reduce the point source loadings as necessary to compensate for the deficiencies EPA identified in the reasonable assurance components of the jurisdictions draft Phase I WIPs addressing non-point source reductions."

2. EPA's discretionary decision to assign all non-point source loading reductions to the point sources is without support. In its September 27, 2010 Comment Document on Pennsylvania's WIP, EPA states that "load from point source reductions [will be] redistributed to forest, septic, and agriculture sources as possible..." There is no justification for shifting such loading reduction from forest and agriculture sources onto the ratepayers of municipal wastewater treatment plants in Pennsylvania.

3. EPA's conclusion that the failure of the non-point source sector to meet its allocations should not be a reason to reduce the allocations of the point source sector and assign the difference to the non-point source sector.

4. The draft TMDL fails to adequately address any mechanisms to reduce the loading from non-point sources, which account for the majority of the loadings to the Chesapeake Bay.

5. Does EPA expect that regulating only the point sources of nutrients will satisfy the restoration objectives of the Bay TMDL?

D. Limit of Treatment Technology for POTW's is Incorrect

1. Please describe how EPA determined the limits of technology for nitrogen and phosphorus (3 mg/l and 0.1 mg/l, respectively) to be used in conjunction with the backstop allocation approach and the documents supporting such determination.

2. Please identify what treatment technology is required for achieving this performance (e.g., MBR's, denite filters).

3. Please state what consideration has been given to the colder wastewater temperatures that prevail in Pennsylvania than in, say, mid-Maryland.

4. Please provide the analysis that relates the limit of treatment technology to the results that would be reported in a DMR given that the limit of detection of total phosphorus is 0.06 mg/l and that a non-detection result will be reported as 0.03 mg/l and not as 0.00 mg/l.

5. Please provide the analysis that relates annual cap loads, given colder wastewater temperature and higher flows in January through April and December of each year, to the aforementioned limit of technology limits for nitrogen and phosphorus.

6. Why is limit of technology applied without regard to delivery ratios?

7. If the requested information is not available, please explain why consideration was not given to these matters.

8. Can special circumstances be argued that limit of technology does not apply to a particular POTW? For example, would a Pennsylvania POTW with a combined sewer system be able to argue that the limit would not apply?

IV. Has EPA Considered Implementation Issues of Each of the Bay Jurisdictions' WIP's?

A. The WIP's prepared by New York, Pennsylvania, Delaware, and West Virginia may represent what those states are actually capable of doing and not promises that more can be achieved.

1. Has EPA considered that the WIP's from the various states may have been written from different points of view and that a WIP provides no assurance that the actions promised will be achieved?

2. If the states do not have sufficient regulatory authority to satisfy EPA, what regulatory authority can EPA assert to assure that the WIP's, as written, can be implemented?

3. If the states do not have sufficient resources, financial or other, what resources can EPA provide to assure that the WIP's as written can be implemented?

V. Monitoring and Modeling Data

A. The draft TMDL cites a number of factors addressed through the watershed model, including the assertion that "non-regulated non-point sources of nitrogen, phosphorus and sediment are fully considered and evaluated...in terms of their relative contributions to water quality impairment of the Chesapeake Bay's tidal waters." If EPA decides to proceed with its "backstop allocation" approach, regulating only point sources of pollutants to the Bay, will the TMDL cease to be scientifically sound and reliable because the non-point source sector has been taken out of the regulatory equation?

B. Watershed model data has been unavailable for review or has been available only in extremely complex and large data sets that are unusable to the public. Beginning in mid-summer, numerous requests have been made to the Department to release the 5.3 delivery ratios. The Department never provided that data, indicating that the Department could not obtain the data from EPA. Only several days before the end of the comment period did EPA furnish the delivery ratios, first in a file that contained over 1.4 million lines of data, then in tables which included all Pennsylvania NPDES permits. Furthermore, the data was not sorted for significant point sources and did not identify 1, 2, and 3 POTW's or provide the facility names. Delivery ratios are critical to evaluating compliance paths for POTW's.

1. Is the modeling so incomplete that moving forward with the TMDL is unwise?

2. What is the status of completion of the 5.3 Chesapeake Bay Watershed Model?

3. Will each new model run in the future necessitate changing to the TMDL and all the policy, regulation, programs, etc. that result from the TMDL?

4. Do delivery ratios decline with reduced nutrient loadings? If that is the case, have reduced delivery ratios been forecast in the model to decline in future years? This question is based on the demonstrated tendency for lower concentrations of nutrients to be consumed nearer the point of discharge than the instance where large concentrations are discharged.

5. Do delivery ratios change with climate change and has this been forecast in the model?

VI. Nutrient Inputs to the Bay Is a Mere Estimate

A. While POTW's report exact nutrient contributions in their discharges in their monthly DMR's the volume of nutrients entering the Chesapeake Bay is a modeling estimate. In the case of New York and Pennsylvania, continuous sampling for just a few points would allow the exact calculation of nutrient contributions to the Bay.

B. It is troubling that the exact amount of nutrients and sediment reaching the Bay from Pennsylvania is not known through continuous measurement, but rather estimated by model. The Department asserts that if more BMP's were reported in Pennsylvania, the model would predict that less nutrient and sediment would reach the Bay even if those BMP's had been implemented years ago. Is this assertion true? The point source community monitors its effluent in accordance with their respective NPDES permits. Why does Pennsylvania not monitor what it discharges into the Bay? Previous inquiries indicate that it is not the Department's responsibility to undertake such monitoring, but rather the United States Geological Survey's. Why would the process of adding additional data into a model result in Pennsylvania discharging less to the Bay? This is not scientifically sound and questions the entire TMDL process.

1. What are the results of sampling the Susquehanna River at the Mason-Dixon Line? Please describe the scope and extent of the data.

2. Please confirm that the Department's assessment in the WIP is correct and that the simple reporting of more BMP implementation would reduce Pennsylvania's contribution to the Bay.

VII. Trading

A. It is clear that Nutrient Credit trading will be severely impacted by the delivery ratio issue discussed earlier in these comments. All trades, including those that have taken place, may be suspect if delivery ratios change during the trading process. The Bay TMDL should also address and delineate guidelines for both interstate and intrastate trading.

B. Does EPA support Pennsylvania's trading program as currently set forth in Pennsylvania's draft WIP?

C. EPA's "backstop allocation" approach will dramatically hinder Pennsylvania's Nutrient Trading program, essentially eliminating all point sources as sellers of credits.

VIII. Funding is Not Addressed

A. There is not sufficient funding to implement the TMDL. In the point source segment this is also true especially in light of the previous studies on the unsustainable nature of Pennsylvania's wastewater infrastructure. Given that most of the benefit of Pennsylvania's efforts will be seen in other states, additional sources of monies should be provided by entities other than Pennsylvania residents. The Department does

not sufficiently report in the WIP on the costs of compliance nor does it make the point that the WIP cannot be implemented without huge amounts of additional funding.

B. Did EPA consider the legal requirements imposed on local governments, including municipal authorities (e.g., bidding, procurement), in structuring its proposed backstop allocation approach? EPA apparently does not appreciate the economic realities of local government, which generally cannot plan for expensive upgrades short-term but, in many instances, must secure funding from outside sources.

C. Will the Federal government contribute the billions of dollars required for compliance with the TMDL?

IX. Sediment Limits Should Not Apply to POTW's

A. The draft TMDL assigns sediment limits to POTW's.

1. How are sediment loads contributed by point sources measured and reported? Is this the TSS discharge, the volatile TSS, as measured in the POTW effluent plus stormwater runoff?

2. Are a POTW's SSO and CSO contributions included in the calculation?

X. District of Columbia Blue Plains POTW Treated Differently from Pennsylvania's POTW's

A. The Blue Plains POTW NPDES permit was effective September 30, 2010.

1. Why is the Blue Plains POTW allowed to discharge from just one of its outfalls concentrations of total nitrogen and total phosphorus greater than EPA's assumed limit of technology? The NPDES permit provides for limits of 3.88 mg/l total nitrogen and 0.18 mg/l total phosphorus.

2. Why do the limits contained in the Blue Plains POTW NPDES permit allow cap loads of 4,377,580 pounds per year total nitrogen which is equal to the load granted to all 183 significant POTW's in Pennsylvania (before the consideration of the average Pennsylvania delivery ratio of 0.75. and Blue Plains delivery ratio of 1.0)?

3. Why is there no cap load for total phosphorus in the Blue Plains permit?

4. Why is the concentration limit for total phosphorus 0.18 mg/l instead of the EPA assumed limit of technology of 0.1 mg/l?

5. Why are the proposed backstop limits for Pennsylvania POTW's lower than the limits imposed on Blue Plains in light of Blue Plains much higher delivery

ratios and the Pennsylvania POTW's in the Potomac basin being upstream of the Blue Plains discharge?

6. Why is the "calculated cap load" (based on design flow times monthly maximum concentration) for total phosphorus 202,737 pounds per year when the total nitrogen cap for all Pennsylvania point sources is 200,000 pounds per year?

7. Same question, but asked in light of the difference in delivery ratios for Blue Plains and all of Pennsylvania.

8. Are the Blue Plains planned total nitrogen reductions beginning in January 1, 2015 considered in the current model and in the resultant allocation of loadings to states and segments within state?

XI. Environmental Justice

A. In a recent federal register notice regarding EPA's national stormwater program and stakeholder input on stormwater rulemaking related to the Chesapeake Bay, EPA indicated that it will address environmental justice consideration as part of the process. EPA should have sought public input and addressed environmental justice considerations as part of the draft TMDL process.

XII. Authority Resolution

A. Attached is a Resolution adopted by the Board of The Harrisburg Authority regarding EPA's draft TMDL, specifically its intended "backstop allocation" approach.

XIII. Authority Comments on DEP Watershed Implementation Plan

A. Attached are the Authority's comments on the DEP's Watershed Implementation Plan.

THE HARRISBURG AUTHORITY

RESOLUTION NO. 2010-011

A RESOLUTION OF THE HARRISBURG AUTHORITY (AUTHORITY) ADDRESSING UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS RELATED TO THE CHESAPEAKE BAY

WHEREAS, the Authority owns an Advanced Wastewater Treatment Facility (AWTF) that provides service to the residents and businesses in the City of Harrisburg and surrounding municipalities.

WHEREAS, the AWTF is operated by the City of Harrisburg pursuant to an agreement with the Authority.

WHEREAS, the Authority is permitted by the Pennsylvania Department of Environmental Protection (DEP) to discharge treated wastewater from the AWTF pursuant to the terms and conditions of its NPDES permit.

WHEREAS, the Authority's current NPDES permit includes Chesapeake Bay Nutrient Requirements pertaining to limits on discharges of total nitrogen (TN) and total phosphorus (TP).

WHEREAS, the Chesapeake Bay Nutrient Requirements are based on DEP's Chesapeake Bay Tributary Strategy.

WHEREAS, the Authority's AWTF is the only major point source in Pennsylvania to rely upon nutrient credits under a program established by DEP to achieve compliance with its NPDES permitted discharge limits.

WHEREAS, the Authority completed an Act 537 Sewage Facilities Plan Update in 2009 to determine the best method to meet the requirements of its NPDES permit.

WHEREAS, the Act 537 Plan recommended an approach that is estimated to cost \$35-million to construct, an additional \$1.8-million to operate and an additional \$1-million per year for the purchase of nutrient credits.

WHEREAS, the recommended Act 537 Plan approach is estimated to increase user rates in the City of Harrisburg by approximately \$90 per year, which represents a forty percent (40%) increase in such rates.

WHEREAS, the Authority has expended significant funds to develop a plan to meet the requirements of its NPDES permit, and to procure and pilot test key equipment.

WHEREAS, the Authority is in the process of selecting an entity to design the chosen technology in order to implement the Act 537 Plan recommendations.

WHEREAS EPA, as part of the Chesapeake Bay Total Maximum Daily Load (TMDL) development process, required Chesapeake Bay Jurisdictions, including Pennsylvania, to

submit watershed implementation plans (WIP) describing how they would meet their respective loading reductions under the Chesapeake Bay TMDL.

WHEREAS, DEP submitted a WIP, which was based on DEP agreed upon loading limits of 6mg/l TN and 0.8 mg/l TP at design flow for significant point sources, of which the Authority's AWTF is the largest.

WHEREAS EPA believes that DEP's WIP does not provide reasonable assurance that DEP will meet its loading reduction requirements under the Chesapeake Bay TMDL and has therefore proposed more stringent discharge limits in Pennsylvania based on EPA's definition of Limit of Technology (3 mg/l TN and 0.1 mg/l TP at design flow). in the draft Chesapeake Bay TMDL.

WHEREAS EPA's proposed plan to impose more stringent discharge limits will cost the City of Harrisburg significant sums of money – through increased construction costs and/or additional purchase of nutrient credits.

WHEREAS EPA's proposed discharge limits will have a significant economic impact on the AWTF and its ratepayers, with rates anticipated to increase eighty percent (80%) of current rates (\$180 extra per year).

WHEREAS, the City of Harrisburg has a majority minority and low income population with twenty five percent (25%) below the poverty line.

WHEREAS, these same people often experience higher levels of environmental pollution and other social and economic burdens that result in poorer health outcomes, and fewer financial or advocacy opportunities to spend on many activities, including "greening" their communities.

WHEREAS, EPA's environmental justice policy requires review and evaluation of these social and economic burdens.


WHEREAS, the draft Chesapeake Bay TMDL has not evaluated the City of Harrisburg's environmental justice concerns.

NOW THEREFORE, the Authority strongly objects to EPA's proposed discharge limits and encourages EPA and DEP to reach an agreement which would result in the abandonment of EPA's proposed discharge limits as set forth in the draft Chesapeake Bay TMDL.

Duly adopted this 27th day of October, 2010 by the Board of The Harrisburg Authority in lawful session duly assembled.

THE HARRISBURG AUTHORITY

ATTEST:


Assistant Secretary

By: 

Chairman

CERTIFICATE

I, the undersigned Assistant Secretary of The Harrisburg Authority, certify that the foregoing Resolution was adopted by a majority vote of the entire Board of the Authority at a meeting duly convened according to law and held on October 27, 2010, at which meeting a quorum was present; said Resolution was adopted by an aye or nay vote; said Resolution and the vote thereon showing how each member voted have been recorded in the minutes of said Board; and said Resolution remains in effect, unaltered and unamended as of the date of this Certificate.

IN WITNESS WHEREOF, I set my hand and official seal of the Authority, this 27th day of October, 2010.


Assistant Secretary

(SEAL)

COMMENTS TO DRAFT PENNSYLVANIA WATERSHED IMPLEMENTATION PLAN ON BEHALF OF THE HARRISBURG AUTHORITY

Provided below are the comments of The Harrisburg Authority (“Authority”) to the draft Pennsylvania Watershed Implementation Plan (“WIP”) issued by the Pennsylvania Department of Environmental Protection (the “Department” or “DEP”) on September 24, 2010. The Authority appreciates the opportunity to provide comments on the draft TMDL.

The Harrisburg Authority is the Pennsylvania municipal authority tasked with providing water, sewer, and resource recovery services for the City of Harrisburg and surrounding municipalities. The Authority’s sewer system serves an approximate population of 122,000 residents from the City of Harrisburg, the Boroughs of Paxtang, Penbrook, and Steelton, Susquehanna Township, and portions of Lower Paxton and Swatara Townships. The Authority’s sewer facilities include interceptor sewers with combined sewer overflows and an Advanced Wastewater Treatment Facility (AWTF) with a design capacity of 37.7 million gallons per day.

The following are the Authority’s comments and questions:

General

The WIP fails to identify the specific activities that will be implemented to reduce nutrient and sediment loading from the agricultural sector. What exactly will be done to assure agricultural compliance? Section 8, which addresses Agricultural, is largely a recitation of existing practices that have proven to be unsuccessful. Also, the cost to Pennsylvania and the cost to each sector is not identified to implement the WIP. Any discussion of costs should include a discussion of funding sources and needs, which is missing from the WIP.

The draft WIP claims that Pennsylvania is “making progress” toward its assigned loading reductions. What steps is the Department taking to ensure that EPA approves the draft WIP and abandons its efforts to implement the “backstop allocation” approach?

Does the Department intend to mandate more stringent discharge limitations in NPDES permits (i.e., limit of technology) even if EPA retains the “backstop allocation” approach in the final Chesapeake Bay TMDL?

Page 3 Background

There is not sufficient time in the schedule to consider public comment and then to revise the WIP. The impact of the WIP and the Chesapeake TMDL will be felt for decades and will cost hundreds of millions if not billions of dollars to implement. The schedule is not considerate of the weight of the issues presented in the WIP and the Bay TMDL.

Page 7 New Technology and Nutrient Trading

The Department is correct that failures in manure management result in greater discharges to the Bay and that regional digesters, some of which could be co-located at existing point source sites, would reduce nitrogen and phosphorus if appropriate BNR or ENR technology is applied. It should be noted, however, that the nutrient removal technology in regional digesters is likely the same as that required of every point source that chooses to meet its cap load through treatment. Further, DEP must assure that the regional digester projects have a source of funding that is independent from funding sources that might be available to the point sources. If separate funding is not implemented, then point sources and regional digesters will compete for the same pool of money.

The Department is advocating the use of advanced technologies to meet the Commonwealth's loading reductions. The Department needs to discuss possible funding of these technologies with Pennsylvania's legislature, EPA, and other federal sources?

Page 19 Two-year Milestones

The WIP indicates that every two years EPA will assess the milestone commitments and evaluate whether the proposed actions, control, and practices would result in estimated loads that are equal to or below the target loading reduction. If EPA determines that targets will not be met, EPA will determine what additional action is required. To the extent that EPA will require implementation of existing practices at additional sites seems to be workable; however, the notion that EPA will require the implementation of new or revised practices at locations where practices have already been implemented is unworkable. For example, for point sources, the implementation of tighter controls on nutrients at point sources that have already implemented controls is either grossly expensive or impossible. For EPA or the Department to instruct a POTW to first install technology or plan to trade to meet annual cap loads as set forth in the Department's Chesapeake Bay Tributary Strategy (for example, standard BNR), then to mandate additional technology to meet tighter cap loads (for example, ENR with a denite filter), or to abandon trading because a sector is not meeting its targets, and then again, two years later force the installation of even more treatment (for example, membranes to achieve extremely low nitrogen and phosphorus limits or polishing filters to remove phosphorus), to meet even lower cap loads is unthinkable relative to expense and uncertainty. EPA has studied the Bay for at least 30 years and should be able to assess with certainty what activities will be required to meet applicable water quality standards.

In the case of the Harrisburg Authority, should cap loads be reduced from the current levels based on design capacity and 6 mg/l total nitrogen and 0.8 mg/l total phosphorus to limit of technology because other sectors fail to meet their targets, it is likely that the Authority will face increased capital expenses of over \$50 million and increased operations and maintenance costs of \$4 million per year. In addition, it is likely that

additional lands would need to be purchased to site the required additional treatment units.

Page 24 Interim and Final Nutrient and Sediment Load Targets

Watershed model data has been unavailable for review or has been available only in extremely complex and large data sets that are unusable to the public. Beginning in mid-summer, numerous requests have been made to DEP to release the delivery ratios in the 5.3 Chesapeake Bay Watershed Model. DEP never provided that data, indicating that it could not obtain it from EPA. Only recently, and at the end of the public comment period, has EPA furnished the delivery ratios, first in a file that contained over 1.4 million lines of data, then in tables which included all Pennsylvania NPDES permits. However, the data was not sorted for significant point sources and did not identify the phase 1, 2, and 3 POTW's or provide the facility names. Delivery ratios are critical to evaluating compliance paths and to assessing EPA's backstop limits for POTW's.

Page 47 Laws, Regulations, Funding

There is not sufficient funding to implement the WIP. In the point source sector, this is also true especially in light of the previous studies on the unsustainable nature of Pennsylvania's wastewater infrastructure. Given that most of the benefit of Pennsylvania's efforts will be seen in other states, additional sources of monies should be provided by entities other than Pennsylvania residents. DEP does not sufficiently report in the WIP on the costs of compliance nor does it make the point that the WIP cannot be implemented without huge amounts of additional funding.

Page 48 Gap Analysis

The Authority agrees with the conclusion that four years into the Point Source Allocation Strategy, no gap should be anticipated.

Page 48 Contingencies

As stated in an earlier comment, point sources require program stability. As long as they are in the process of meeting the standards set for them in 2006, no change in those standards should be allowed and DEP should not be permitted to reduce their allocation to make up for a failure in another sector, such as the non-point source sector.

Page 49 Current programs and capacity

If it is correct as stated that it is unlawful under the Clean Streams Law to discharge pollutants to surface or groundwater except as allowed by regulation, then the DEP's enforcement for agricultural operations must be lacking. This conclusion is obvious given the large proportions of nitrogen, phosphorus and sediment coming from this sector. Until DEP assures that this sector is in full compliance with the Clean Stream

Law, other sectors should not be tasked with meeting tighter standards than those set forth in the CBTS.

Page 50 Trading

How does the Department intend to address EPA's concerns regarding the Department's trading program as expressed in EPA's Comment Document on Pennsylvania's Draft WIP, dated September 27, 2010?

Page 52 Limit of Technology

Does the Department agree with EPA that the respective limits of technology for nitrogen and phosphorus are 3 mg/l and 0.1 mg/l?

Page 59 Agriculture

The Department has regulatory authority under the Clean Streams Law to ensure that the non-point source sector meets its loading reduction obligations under the Chesapeake Bay TMDL. The Department should state that it will use this authority to ensure that the non-point source reductions in the Chesapeake Bay TMDL are met.

Page 61 DEP Regulations for Farms

What action will the Department take under 25 Pa. Code § 91.36 to ensure that all regulatory requirements for nutrient management for manure storage and land application are undertaken?

Page 63 BMP Tracking

It is troubling that the exact amount of nutrients and sediment reaching the Bay from Pennsylvania is not known through continuous measurement, but rather estimated by model. For example, the Department asserts that if more BMP's were reported in Pennsylvania, the model would predict that less nutrient and sediment would reach the Bay even if those BMP's had been implemented years ago. Is this assertion true? The point source community monitors its effluent in accordance with their respective NPDES permits. Why does Pennsylvania not monitor what it discharges into the Bay? Previous inquiries indicate that it is not the Department's responsibility to undertake such monitoring, but rather the United States Geological Survey's. Why would the process of adding additional data into a model result in Pennsylvania discharging less to the Bay? This is not scientifically sound and questions the entire TMDL process.

Page 64 Staffing Considerations – Regulatory Programs

The Department asserts that: "Pennsylvania's strength in the environmental regulation of agriculture is the laws and regulations currently in place." However, the draft WIP states that Pennsylvania cannot ensure compliance with these laws or regulations because of

staffing issues. Such a position is unacceptable, as compliance is a concern raised by EPA in its September 27, 2010 comment letter to the Department regarding the draft WIP (“...there appears to be a high-level of non-compliance with existing state programs for farm conservation and nutrient management plans” (see p.3). Pennsylvania must ensure that it has adequate resources to address the regulation of non-point sources, such as agriculture.

Page 79 Laws

It is noted that Act 167 has lost its funding and that implementation of the stormwater management plans already written by local municipalities is unlikely. Should funding be made available to municipalities for implementation of plan recommendations, then funding should also be made available to communities served by CSO systems recognizing that the implementation of Long Term Control Plan’s will in many cases achieve more to reduce nutrients and sediment than implementation of many of the Act 167 recommendations.

Page 97 Onsite Wastewater

There is little likelihood that significant reductions in nitrogen discharged from on lot disposal systems will be achieved even if extensive efforts are made to replace existing systems with ones believed to be capable of nitrogen reduction due to relatively low groundwater temperatures in much of the Pennsylvania and due to the lack of operations and maintenance that will be practiced. The only significant solution to reduction of nitrogen discharge from OLDS will be through their abandonment in favor of connection to public sewers. Currently an offset of 25 pounds per year of nitrogen is provided to certain qualifying OLDS when connected to a public sewer. This, alone, is not sufficient to cause public sewer systems to seek to construct new sewer systems. If reduction in this segment is required, then incentives should be implemented.

Authority Resolution

Attached is a Resolution adopted by the Board of The Harrisburg Authority regarding EPA’s draft TMDL, specifically its intended “backstop allocation” approach.

Authority Comments on EPA’s Draft Total Maximum Daily Load

Attached are the Authority’s comments on the EPA’s Draft TMDL.